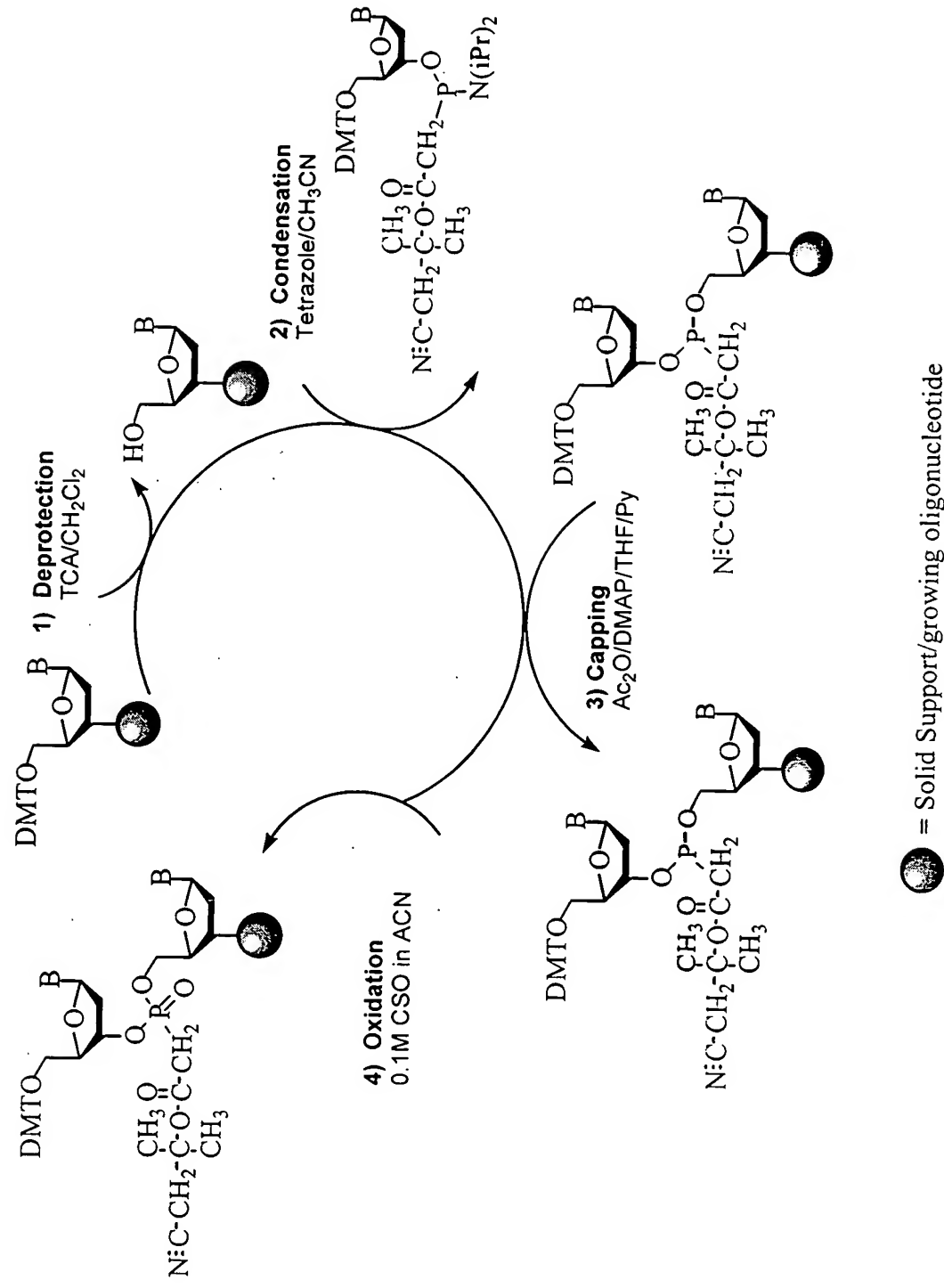
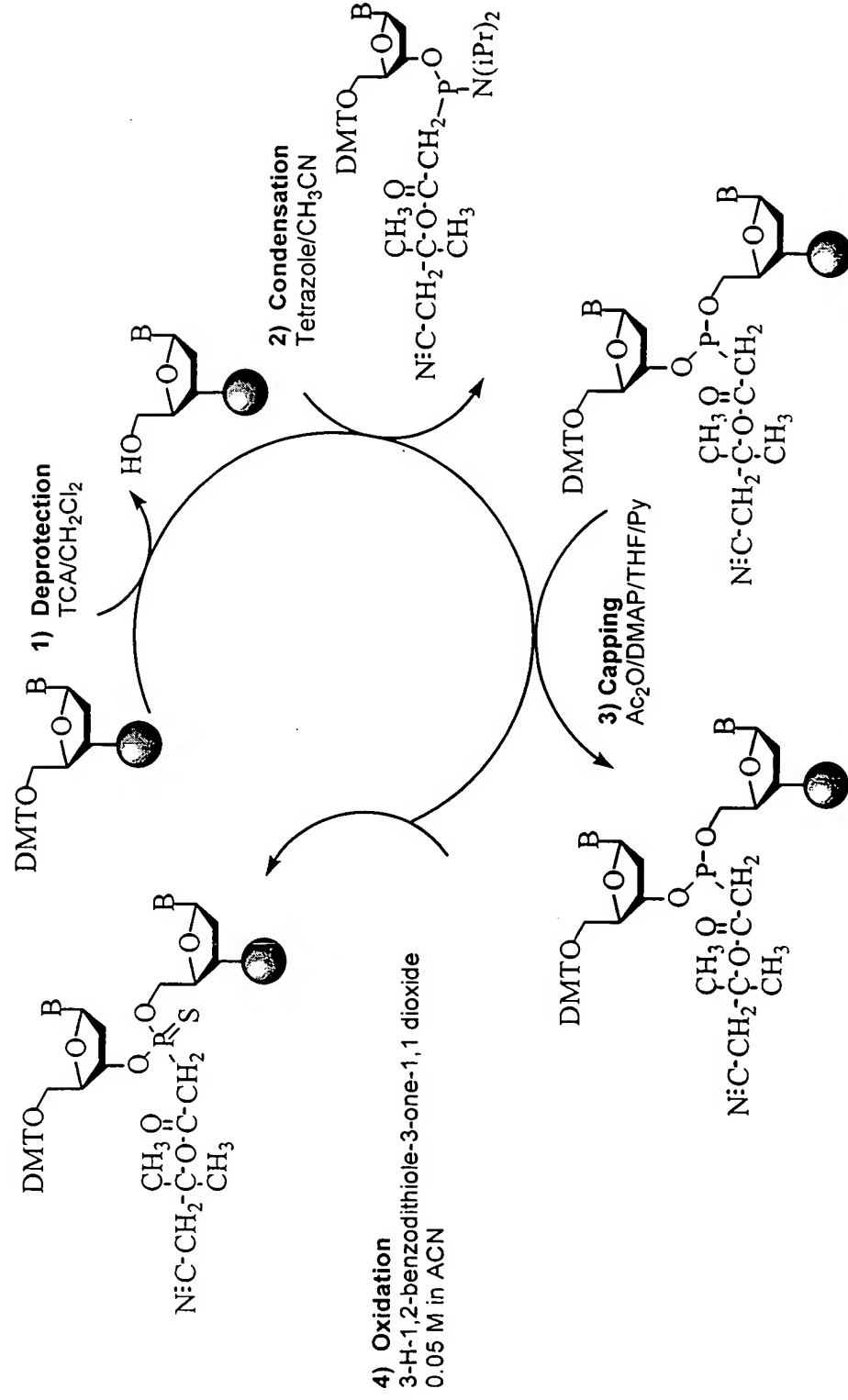



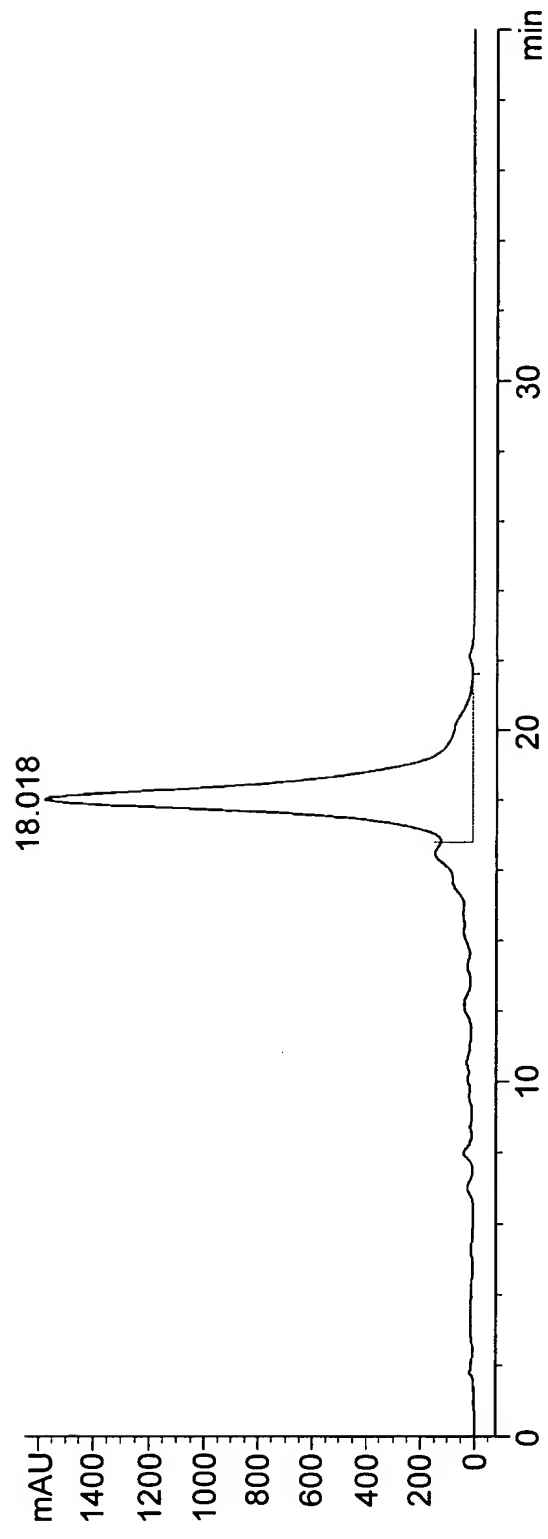
**Figure 1: Synthesis Cycle for Phosphonoacetate Polynucleotides**



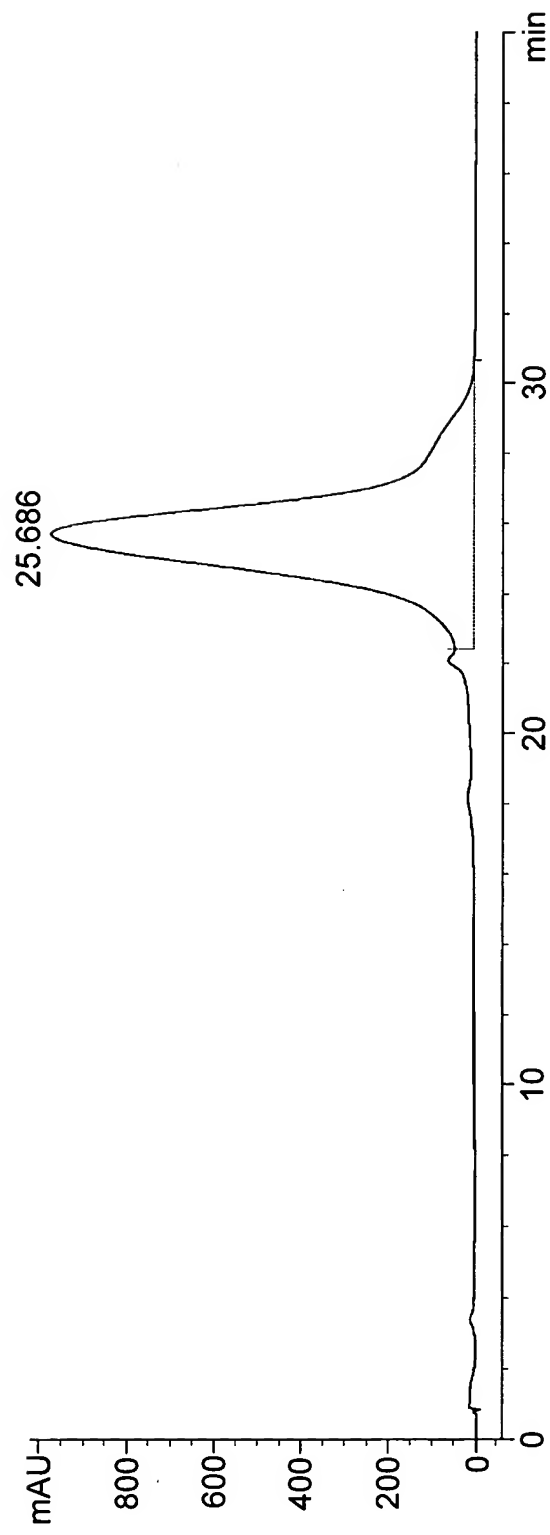
**Figure 2: Synthesis Cycle for Phosphonothioacetate Polynucleotides**



 = Solid Support/growing oligonucleotide

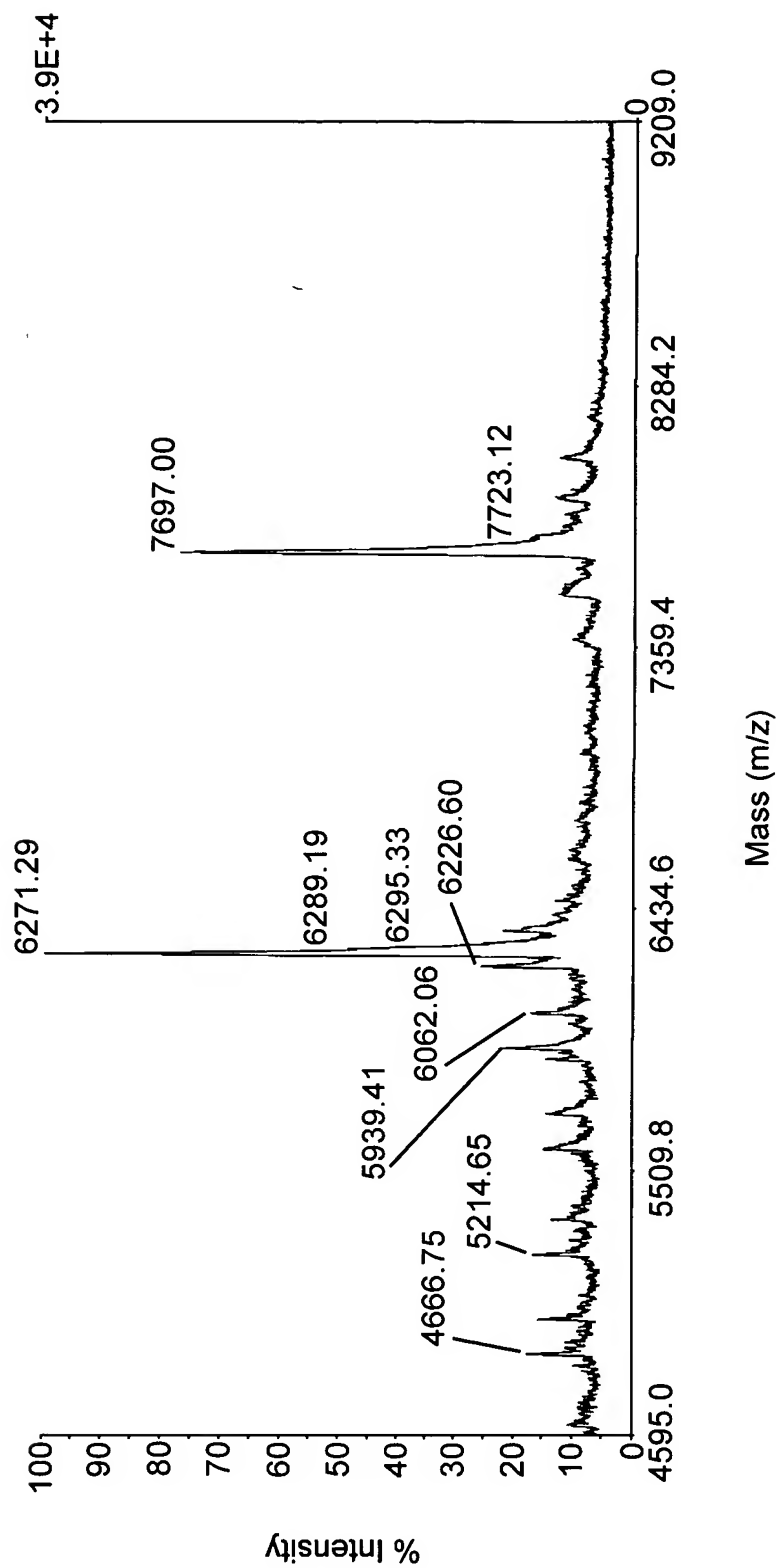


**FIG. 3**



**FIG. 4**

Spec #1=> MC[BP = 6270.4, 38636]



**FIG. 5**

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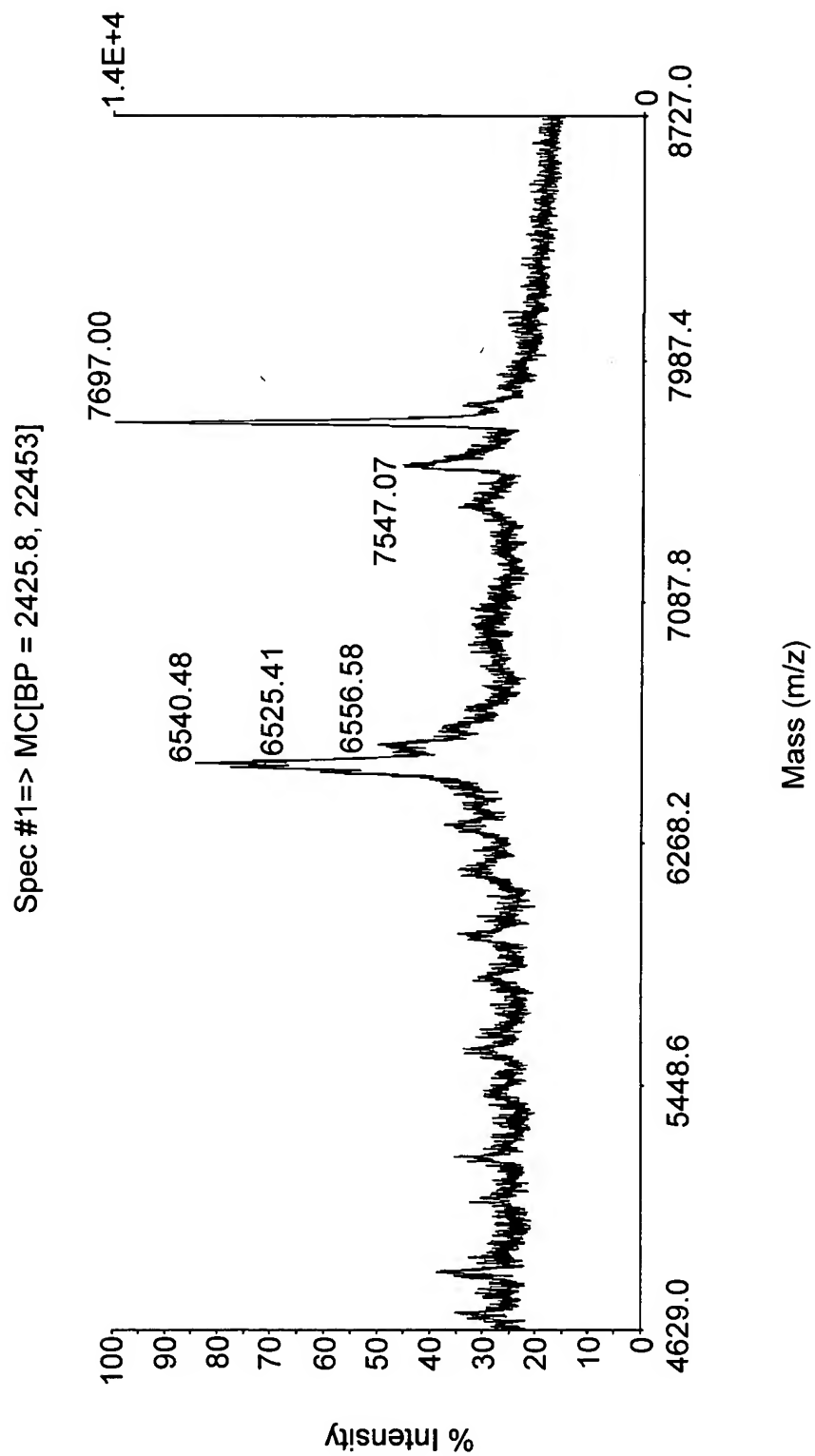


FIG. 6

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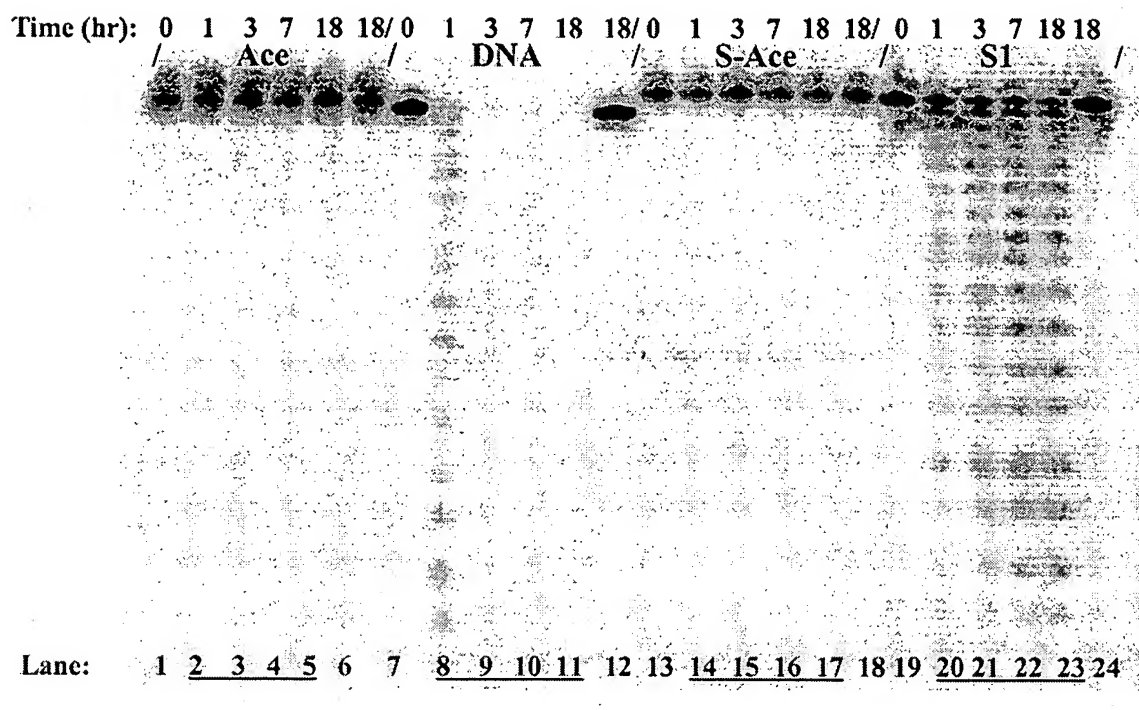


FIG. 7

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Time (hrs): 0 1 3 7 18 18 / 0 1 3 7 18 18 / 0 1 3 7 18 18 / 0 1 3 7 18 18

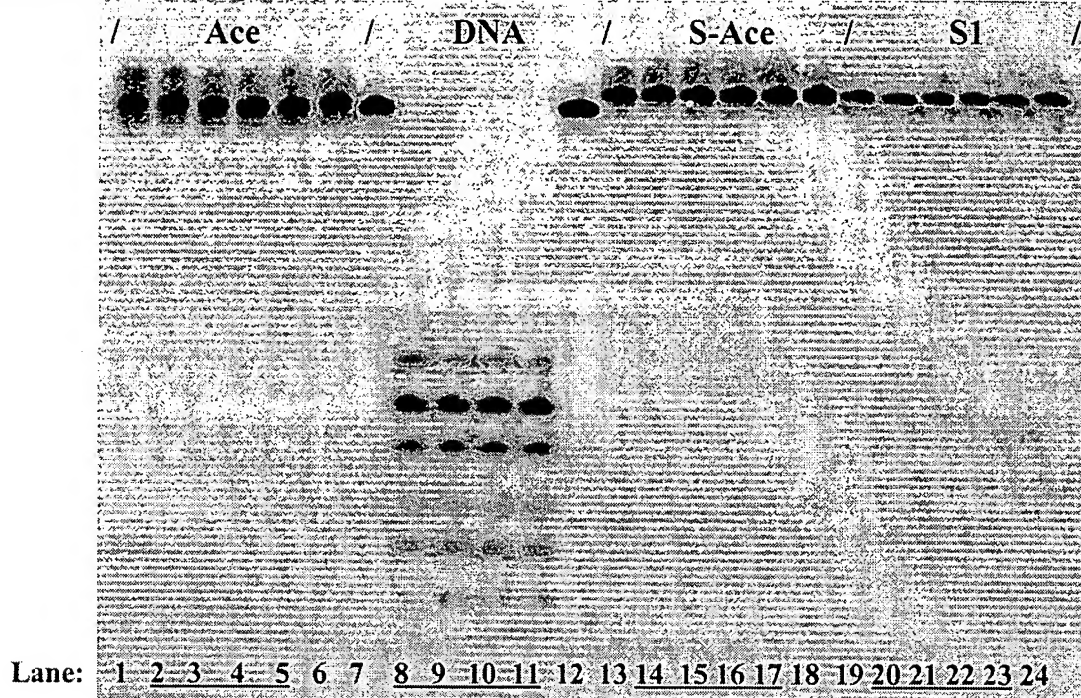


FIG. 8

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Lane:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enz :	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Oligo:	none	/	Ace	/	DNA	/	S-Ace	/	SI	/	2'-OMe	/	Ace NC	/	S-Ace NC	/

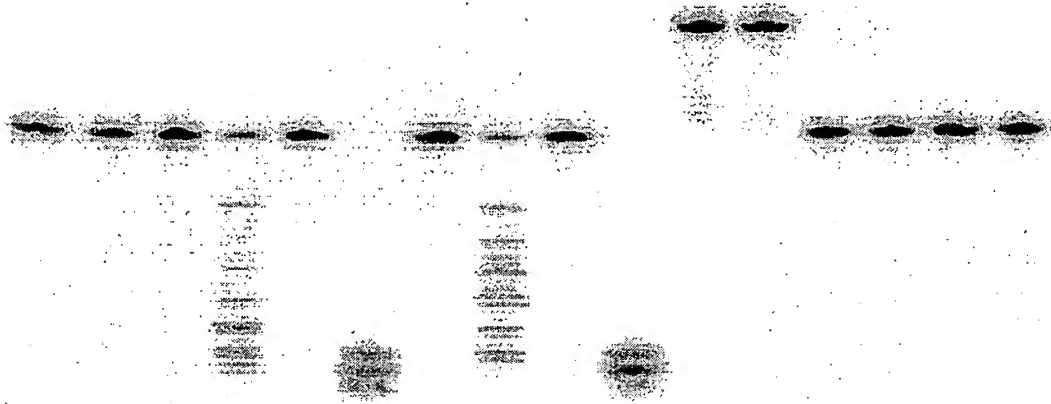


FIG. 9

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